Arguments to the Claims

Please amend claims 1-7, 9-14, 20-29, 35 and 45 as follows.

1. (currently amended) An optical node for processing an incoming optical signal with a plurality wavelengths with each of said plurality of wavelengths having a plurality of signal components in a wavelength division multiplexing (WDM) optical network, comprising:

a ~~first module~~ fiber interface unit for receiving, extracting and processing said plurality of wavelengths;

a ~~second module~~ port chassis unit with a plurality of input ports and a plurality of output ports coupled to said fiber interface unit, for extracting ~~each of~~ said plurality of signal components from each of said plurality of wavelengths processed by said ~~first module~~ fiber interface unit; and

a ~~third module~~ switch chassis unit for routing said plurality of signal components from said input ports to said plurality of output ports in said ~~second module~~ port chassis unit,

wherein said port chassis unit and said switch chassis are integrated on a single platform.

2. (currently amended) The optical node of claim 1, wherein the ~~second module~~ port chassis unit and the ~~third module~~ switch chassis unit are interconnected via optical transceivers.

3. (currently amended) The optical node of claim 1, wherein the ~~first module~~ fiber interface unit and the ~~second module~~ port chassis unit are interconnected via optical transponders.

4. (currently amended) The optical node of claim 1, wherein said processing by said ~~first module~~ fiber interface unit provides fiber and wavelength layer functions.

5. (currently amended) The optical node of claim 1, wherein said extracting by said ~~second module~~ port chassis unit provides wavelength to circuit adaptation function.

6. (currently amended) The optical node of claim 1, wherein said extracting by said ~~second module~~ port chassis unit further provides one or more circuit layer functions.

7. (currently amended) The optical node of claim 1, wherein said processing by said ~~third module~~ switch chassis unit provides a space switch function.

8. (original) The optical node of claim 2, wherein the optical transceivers comprise a vertical cavity surface emitting laser diode (VCSEL).

9. (currently amended) The optical node of claim 4, wherein the fiber and wavelength layer functions provided by the ~~first module~~ fiber interface unit comprise wavelength multiplexing and wavelength demultiplexing functions.

10. (currently amended) The optical node of claim 4, wherein the fiber wavelength layer functions provided by the ~~first module~~ fiber interface unit further comprise wavelength add and wavelength drop functions.

11. (currently amended) The optical node of claim 4, wherein the fiber and wavelength layer function of the ~~first module~~ fiber interface unit further comprise a wavelength power balancing function.

12. (currently amended) The optical node of claim 4, wherein the fiber and wavelength layer function of the ~~first module~~ fiber interface unit further includes a wavelength dispersion compensation function.

13. (currently amended) The optical node of claim 4, wherein the fiber and wavelength layer function of the ~~first module~~ fiber interface unit further comprises a wavelength amplification function.

14. (currently amended) The optical node of claim 4, wherein the fiber and wavelength layer function of the ~~first module~~ fiber interface unit further comprises a wavelength protection function.

15. (original) The optical node of claim 5, wherein the wavelength to circuit adaptation function comprises wavelength division multiplexing (WDM) transponding function.

16. (original) The optical node of claim 6, wherein the one or more circuit layer functions comprises a signal regeneration function.

17. (original) The optical node of claim 6 wherein the one or more circuit layer functions further comprises an electrical add and an electrical drop function.

18. (original) The optical node of claim 6, wherein the one or more circuit layer functions further comprises a per circuit performance monitoring function.

19. (original) The optical node of claim 6, wherein the one or more circuit layer functions further comprises a circuit protection function.

20. (currently amended) An optical node for processing an incoming optical signal with a plurality wavelengths with each of said plurality of wavelengths having a plurality of signal components in a wavelength division multiplexing (WDM) optical network, comprising:

a ~~first module~~ fiber interface unit for receiving, extracting and processing said plurality of wavelengths;

a ~~second module~~ transponder interface unit for extracting ~~each of~~ said plurality of signal components from each of said plurality of wavelengths processed by said ~~first module~~ fiber interface unit, and for switching said plurality of signal components in a time domain; and

a ~~third module~~ switch chassis unit with a plurality of input ports and a plurality of output ports coupled to said transponder interface unit, for routing said plurality of signal components from said input ports to said plurality of output ports,

wherein the fiber interface unit and the transponder interface unit are integrated on a single platform.

21. (currently amended) The optical node of claim 20, wherein said processing by said ~~first module~~ fiber interface unit provides fiber and wavelength layer functions.

22. (currently amended) The optical node of claim 20, wherein said extracting by said ~~second module~~ transponder interface unit provides wavelength to circuit adaptation function.

23. (currently amended) The optical node of claim 20, wherein said extracting by said ~~second module~~ transponder interface unit further provides one or more circuit layer functions.

24. (currently amended) The optical node of claim 21, wherein the fiber and wavelength layer functions provided by the ~~first module~~ fiber interface unit comprise wavelength multiplexing and wavelength demultiplexing functions.

25. (currently amended) The optical node of claim 21, wherein the fiber wavelength layer functions provided by the ~~first module~~ fiber interface unit further comprise wavelength add and wavelength drop functions.

26. (currently amended) The optical node of claim 21, wherein the fiber and wavelength layer function of the ~~first module~~ fiber interface unit further comprise a wavelength power balancing function.

27. (currently amended) The optical node of claim 21, wherein the fiber and wavelength layer function of the ~~first module~~ fiber interface unit further includes a wavelength dispersion compensation function.

28. (currently amended) The optical node of claim 21, wherein the fiber and wavelength layer function of the ~~first module~~ fiber interface unit further comprises a wavelength amplification function.

29. (currently amended) The optical node of claim 21, wherein the fiber and wavelength layer function of the ~~first module~~ fiber interface unit further comprises a wavelength protection function.

30. (original) The optical node of claim 22, wherein the wavelength to circuit adaptation function comprises wavelength division multiplexing (WDM) transponding function.

31. (original) The optical node of claim 23, wherein the one or more circuit layer functions comprises a signal regeneration function.

32. (original) The optical node of claim 23, wherein the one or more circuit layer functions further comprises an electrical add and an electrical drop function.

33. (original) The optical node of claim 23, wherein the one or more circuit layer functions further comprises a per circuit performance monitoring function.

34. (original) The optical node of claim 23, wherein the one or more circuit layer functions further comprises a circuit protection function.

35. (currently amended) In an optical node with a plurality of input ports and a plurality of output ports, a method of processing an optical signal with a plurality of wavelengths with each of the plurality of wavelengths having a plurality of signal components, the method comprising the steps of:

~~inputting~~ receiving said optical signal;

extracting said plurality wavelengths from said optical signal;

extracting said plurality of signal components from each of said plurality of wavelengths;

allocating said plurality of signal components onto said input ports; and

switching said plurality of signal components from said input ports to said output ports,

wherein the steps of extracting, allocating and switching said plurality of signal components are performed on a single platform.

36. (original) The method according to claim 35, wherein said step of extracting said plurality of wavelengths from said optical signal further comprises the step of amplifying said extracted plurality of wavelengths.

37. (original) The method according to claim 35, wherein said step of extracting said plurality of wavelengths from said optical signal further comprises the step of performing dispersion slope compensation on each of said plurality of extracted wavelengths.

38. (original) The method according to claim 35, wherein said step of extracting said plurality of wavelengths from said optical signal further comprises the step of performing polarization mode dispersion compensation on each of said plurality of extracted wavelengths.

39. (original) The method according to claim 35, wherein said step of extracting said plurality of wavelengths from said optical signal further comprises the step of performing dispersion compensation on each of said plurality of extracted wavelengths.

40. (original) The method according to claim 35, wherein said step of extracting said plurality of wavelengths from said optical signal further comprises the step of monitoring performance of each of said plurality of extracted wavelengths.

41. (original) The method according to claim 35, wherein said step of extracting said plurality of wavelengths from said optical signal further comprises the step of protecting each of said plurality of extracted wavelengths.

42. (original) The method according to claim 35, wherein said step of extracting said plurality of signal components from each of said plurality of wavelengths further comprises the step of performing signal regeneration on each of said plurality of extracted signal components.

43. (original) The method according to claim 35, wherein said step of extracting said plurality of signal components from each of said plurality of wavelengths further comprises the step of monitoring performance of each of said plurality of extracted signal components.

44. (original) The method according to claim 35, wherein said step of extracting said signal components from each of said wavelengths further comprises the step of protecting each of said plurality of extracted signal components.

45. (currently amended) An optical switch node, comprising:

a plurality of port interface circuit card assembles having mounted thereto, a plurality of dense wavelength division multiplexing (DWDM) lasers having a plurality of wavelengths for interconnecting said plurality of port interface circuit card assembles with a ~~switch chassis~~ DWDM network; and

a plurality of optical transceivers to interconnect said plurality of port interface circuit card assembles with ~~said~~ a switch chassis,

wherein said plurality of port interface circuit card assembles and said plurality of optical transceivers are integrated on a single platform.

46. (original) The optical switch node of claim 45, wherein the plurality of port interface circuit card assembles further comprises a dense wavelength division multiplexing (DWDM) interface for receiving and processing a plurality of optical channel signals.